



Features of the CW Series

- Direct acting proportional controller for regulating the cooling-water return temperature.
- Reduced capital costs (for new plants) coolant and energy consumption due to higher discharge temperatures
- The valve prevents short-circuiting and automatically balances large systems.
- Straight-through body with solid-state expansion thermostat and setting device.
- Standard valve type CW 41 with pressure gauge (0–6 bar) and thermometer (–30 to +100 °C).
- MCW 41 = CW 41 with diaphragm actuator. (Retro-fitting of diaphragm actuator possible).

Application

CW 41 CW 44	for industrial cooling water
CW 41/4 CW 44k	for brine, ammoniacal water, and chlorinated hydrocarbons
MCW 41	for heavily contaminated cooling systems

Specification*)

Type	PN	Δ PMX [bar]	Material		Pressure/Temperature	
			DIN	ASTM	PMA / TMA	PMA / TMA
CW 41	16	6	GGG 40.3	FGS370-17 ¹⁾	16 bar/–32 °C	16 bar/120 °C ²⁾³⁾
CW 41/4	16	6	GGG 40.3	FGS370-17 ¹⁾	16 bar/–32 °C	16 bar/120 °C ²⁾³⁾
CW 44	25	16	C 22.8	A 105 ¹⁾	25 bar/–2 °C	25 bar/120 °C ²⁾³⁾
CW 44k	25	16	C 22.8	A 105 ¹⁾	25 bar/–37 °C	25 bar/85 °C ²⁾³⁾

1) ASTM nearest equivalent grade is stated for guidance only.
Physical and chemical properties comply with DIN.

2) Temperature only admissible for a short time

3) Admissible temperature depends on type of thermostat:
type n (standard) 120 °C, type w (wax) 100 °C, type k (brine) 85 °C

*) For more information see data sheets.

Temperature Ratings

Type	Thermostat/cone combination	Adjustment range
CW 41	wr or ws	20 °C – 60 °C
CW 41/4	nr or ns	3 °C – 100 °C
	kr or ks	–32 °C – 74 °C
CW 44	n	–2 °C – 106 °C
CW 44k	k	–37 °C – 71 °C

w = wax thermostat r = reduced cone for small flowrates
n = standard thermostat s = standard cone for large flowrates
k = thermostat for brine

End Connections and Overall Lengths

Type	End connection	Overall length L [mm]							
		DN 10	DN 15	DN 20	DN 25	DN 40	DN 50	DN 80	DN 100
		3/8"	1/2"	3/4"	1"	1 1/2"	2"	3"	4"
CW 41	Flanged DIN PN 16	–	–	–	160	200	230	310	350
CW 41/4	Flanged DIN PN 16	–	–	–	160	200	230	310	350
CW 44	Screwed sockets	95	95	95	95	–	–	–	–
CW 44 k	Screwed sockets	95	95	95	95	–	–	–	–

Flowrates (k_v values)

Type	Cone		DN 25 mm	DN 40, DN 50 mm	DN 80, DN 100 mm
CW 41	r	K_{VS} value [m ³ /h]	2.1	6.5	20
		K_{VO} (Preset bleed flow) [m ³ /h]	0.12	0.31	1.0
CW 41/4	s	K_{VS} value [m ³ /h]	10.5	31	98
		K_{VO} (Preset bleed flow) [m ³ /h]	0.55	1.5	5.0
			3/8"	1/2"	3/4" 1"
CW 44	–	K_{VS} value [m ³ /h]	0.66	0.66	1.37 1.37
CW 44 k	–	K_{VO} (Preset bleed flow) [m ³ /h]	0.025	0.025	0.07 0.07